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HYSTERIA IN CHILDREN.[1]

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The object of this paper is not to discuss the nature of hysteria, or even many of its various problems, but simply to embody the experience gained in the clinical observation of a considerable number of cases in children, and to emphasize the difference between the clinical phenomena of the disease as it occurs in adults and in children. The processes of thought in children being simpler than in the adult also makes the direct relation of the suggestion to the symptoms of the disease much clearer than is usually the case with adults, and thus is of significance in our concept of the nature and origin of the disease.

I have taken for a basis the cases of hysteria observed at the Children's Hospital from March, 1894, to May, 1907, and those at the Boston City Hospital from May 3, 1901, to April 17, 1907, the periods being determined by the availability of the records of cases at these two hospitals in the indexes of diseases. The upper limit of age has been placed at fifteen years since most writers have taken this limit, in particular those publishing tables of cases.

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None of the cases included, however, had reached puberty when first seen, and as at the Children's Hospital the age limit, though not always strictly enforced, is twelve years, most of the cases are below the limit set.

Almost all writers on hysteria recognize the fact that it occurs in children, and some of them devote considerable space to its characteristics in the young, as Binswanger in various parts of his treatise on the subject. There is, however, a considerable variation among writers, both of neurological and pediatric literature as to its frequency. Holt in his text-book on the diseases of children considers it rare before seven or eight, but apparently not so in later childhood. Heubner again considers it relatively frequent in children, though like most German writers he thinks the disease does not occur in babies. Koplik, on the other hand, speaks of it as not a true disorder of childhood. Lloyd in Starr's "Text-Book of the Diseases of Children," and Mills in Keating's "Cyclopedia of the Diseases of Children" have written at considerable length upon the subject, but while expressing in a general way their opinion that the disease is not especially rare in children, give no figures from their own experience. Taylor, in his book on the nervous diseases of children, gives but little space to hysteria, aside from what he says about functional paralysis, although other phenomena are very frequently found in children. Sachs, in his book on the nervous diseases of children, says what is undoubtedly true in this country, that hysteria is a rare disease, but adds that it is still rarer in children. Our figures show that this is so, especially in regard to the proportion of children's cases to those of adults. At the other extreme are some of the French writers. One might think after reading the monograph of Bezy and Bibent that most children, from the cradle on, were hysterics, if they either laughed or cried, so varied are the symptoms described. Oppenheim, in his book on nervous diseases, says that he has repeatedly seen hysterical symptoms in children between four and six years of age, and well-marked hysteria between eight and ten years. Gowers makes no detailed statement, but quotes older authors, as Briquet and Landouzy. We shall return to the various questions connected with the frequency of the disease in greater detail in the discussion of the symptomatology.

The following cases are taken from the records of the Children's Hospital and the Boston City Hospital, from the departments for Nervous Diseases in each case, and for their kind permission to use the material I have to thank my colleagues, Drs. Bullard, Prince and Knapp.

The cases with convulsive attacks of greater or less severity vary considerably in character. The first one, except for the rigidity, might be taken for simple fainting attacks.

CASE 1. Ida Z. (B. C. H. 11323) was first seen on July 20, 1904, when twelve years of age. She was born in Boston, but of Russian parents. The mother died of kidney disease in convulsions. The child had had measles, mumps and pertussis when an infant, but otherwise had always been well. For two years she had had fainting spells in which she says, "papa, my hand," and then falls to the floor, with the left extremities rigid, but no convulsive movements. This lasts for five minutes. She has never injured herself in the attacks, and has not lost control of the sphincters in them, nor has there been any drowsiness afterwards. She has had occasional frontal headaches but no vomiting.

On examination there was found a left hemianesthesia, including the left side of the tongue and face, with normal fields of vision and no changes of the reflexes.

There were no attacks in the week after the first visit to the hospital, and the patient was lost sight of. This case I think to be an example of suggestion, as the child had seen her mother in the convulsions preceding her death, and her attacks began soon after this.

The next case, too, illustrates the suggestibility.

CASE 2. Patrick K. (B. C. H. 12230), born in Boston, and nine years of age, was seen first on November 27, 1905. His sister was also a patient at the hospital (12422) and in her case a diagnosis of simple nervousness was made. She drank considerable tea, cried easily, and was excitable, having an attack of excitement first in September when afraid of punishment, and these had occurred a number of times. Her physical examination was entirely negative. The family history was otherwise negative, and the boy's health had previously been good. The two children had been a great deal together. The boy had been well till ten days before being brought to the hospital, when he saw his sister have an excited attack, whereupon he became violent, cried loudly, and had to be restrained. He did not seem to lose consciousness and did not bite the tongue. Since this time he had had a similar attack almost every day, lasting fifteen minutes. In these attacks he sways as if drunk, "works" the hands and feet, knocks his head, and screams. There had been no loss of sphincteric control, no amnesia for the attack and no subsequent stupor.

Examination showed slight concentric contraction of the field of vision, more marked in the right eye, but no disturbance of sensation, no palatal anesthesia, and otherwise normal conditions. There was slight suggestibility to waking suggestion.

During the next three weeks the boy had only three or four attacks, which were milder. Then a history was obtained that the previous winter the boy had seen a man fall off a wagon, and though the man was not hurt the child was frightened, and that each attack he had began with staggering, but with no hallucination of a man falling, and the boy stated that he had no feeling of fright. He recalls everything that happens in the attacks. The mother says that he has something like a "shock" in the leg and cannot walk for a couple of minutes. The boy resisted hypnotism, but a suggestion of weakness of the right arm made in the waking state was reacted to. Three days later he was put under slight hypnosis and the suggestion of no further attacks made. He awakened easily, with amnesia for the suggestion, and on April 9, 1906, some four months later, he had had no further attacks.

The next case is one in which the diagnosis of hysteria may be somewhat doubtful, but is the most probable one.

Case 3. The child, Ethel O., colored, born in North Carolina, and fourteen years of age, came to the Out Patient Department (B. C. H. 10181) first on November 19, 1902. The preceding February she had been a ward patient, when it was noted that during the examination the arms were acutely flexed, and there was occasional stiffening of the body, and spasm of the orbicularis palpebrarum. There was a systolic murmur at the apex of the heart, the knee-jerks were lively, and there was no hemianesthesia. She had been studying hard, and one week before her entrance she began to have nervous fits and fainted several times, complained of headache and was very constipated. She had two attacks while in the hospital which were said to be hysterical in character, though no description was given. She remained in the hospital from February 12 to February 24.

When she was seen in November she complained of pain in the back, and left side, and of facial neuralgia on the right, but she had no more fainting attacks since leaving the hospital in February.

On examination there was found a well-marked scoliosis with rotation of the vertebræ and a slight myopia, but no other ocular trouble. In December, 1903, she complained of sensitiveness of the left chest to a light blow, and it was noted that there was slight hyperesthesia on the right chest and back. On January 4, 1904, it was noted that the whole thoracic and lumbar spine was sensitive to light pressure and that there were tender points in the left back below the scapula, in the left chest, and the left iliac region, while touch and pain stimuli were felt better on the right side of the trunk than an the left. On July 13, 1904, she had an attack which began with quivering of the abdominal muscles on the left, and this extended to the left hand and left leg and then became general, and there was considerable tossing about on the bed. After this attack she was more irritable than she had been. This was the first attack in six months. During the next month she had no attack, and after that she failed to come to the hospital.

The next case also seems to be one of hysteria.

CASE 4. Martin J. L. (B. C. H. 11071), was first seen on March 9, 1904, when he was nine years old. He was born in Massachusetts, of Irish descent, and was an only child. The parents were living and well. When two years old he broke his forearm, and he had had various infectious diseases, but all before he was five years old.

He was brought to the hospital because of attacks of laughing and crying, followed by aimless walking. These began the preceding April, when one day he was put through a neighbor's window, and she attacked him with a broom, and threatened arrest. After this he seemed nervous and would not go to school, saying that the boys threw pieces of mortar at him as he was going home, and that the children accused him falsely of making noises. He had had several attacks, which began by twitching of the mouth, laughing and crying, and then he would walk up and down for about fifteen minutes. If restrained he became violent, trying to bite, mumbling, and saying, "Let me go." He had occasional vomiting. He improved under hygienic treatment until in May the mother thought he was well. In November, 1904, he was again brought to the hospital, because going to school had brought on a return of the trouble. In December the mother gave an account of an attack where he swept the floor with great vigor, then washed it, and then for an hour walked from room to room. He then appeared weak and pale, and the mother thought he was unconscious for about fifteen minutes. There was no cry, the head was drawn back, the eyes closed and she stated that he frothed at the mouth, but there were no convulsive movements, and he did not pass urine or bite the tongue. There seemed to be no memory of the attack. Examinations, which were repeated, showed no organic diseases, no changes in the field of vision, or of sensation, and no tremor.

This case seems to me to be one of those with attacks resembling convulsive ones, following a fright, and continued through emotional causes. The boy's teacher, as often happens with hysteria, thought he was shamming in order to avoid having to attend school.

The next case is one in which I think we have a true combination of epileptic attacks with hysterical ones.

CASE 5. The child, Grace J. T., aged twelve years, was first seen at the Children's Hospital on September 19, 1894. (A-166.) She was an only child. The labor had been a severe one with forceps, but she showed no symptoms of any trouble afterwards. At the age of ten months she had "inflammation of the lungs," and at eighteen months pneumonia, which left the lungs "weak" for a number of years. Since she was four or five years old, about once a year, she had had attacks of vomiting which would last for a week. She had had measles, pertussis and varicella. In January, 1892, she told her mother that she had had two or three attacks in which she was unconscious for a moment, and the stomach felt badly [aura from epigastrium?]. The first attack seen was in February, and since then they had been frequent, sometimes as many as four or five a day, and again she had been as long as a week without any. The longest free interval had been two weeks. These attacks resembled the minor attacks of loss of consciousness of petit mal. In June, 1892, she was bitten by a dog, and knocked down, and since this the attacks had been more severe, being accompanied by frothing at the mouth. There were no clonic movements of the extremities, but sometimes one arm and sometimes the other would be "contracted," with the fingers flexed and the forearm extended. This "contraction" lasts five to ten minutes. She had not been going to school regularly since the attacks began, but had gone for a week or so at a time, and this always made the attacks more frequent. Before the attack she had a sensation of faintness for two or three days, and at times a sensation of dizziness, which seemed to rise from the stomach to the back of the head and neck.

On examination there was well-marked hyperalgesia in both hands and arms, and tenderness in the iliac region on both sides. The touch perception was normal, and the examination was otherwise negative. One attack at the clinic seemed to be caused by making pressure on the tender area in the right iliac region.

Under treatment the attacks became much milder again, and less frequent, but continued for the seven months that the child was under observation. They finally assumed the character they had before the dog bit her, being merely momentary losses of consciousness. Here our chief reason for calling any of the attacks hysterical was the effect of pressure upon the tender area in the abdomen, which seemed to show that it was a hysterogenetic zone, though the majority of the attacks were probably those of petit mal.

Case 6. The next case, that of Helen K., seven years of age, was first seen at the Children's Hospital on July 30, 1904. (W-148.) The family and previous history contained nothing worthy of note so far as could be learned.

About eighteen days before she was seen she had a tooth extracted, at which time she was much frightened. After this she had seemed like herself for two days, and then it was noticed that she held her hand to the right side of the face, and complained of her tooth, though not of pain, and she was observed to laugh in a silly way. Two days later she began to have attacks in which the right arm was held rigid for several seconds and then relaxed, and she would put the hand to the face, and the eyes were rolled up. There was no loss of consciousness, and no drowsiness after the attack. She had only fallen once in the attack. The child was very irritable, but there were no tender areas found and no disturbance of sensation. During the two weeks that the child was under observation the attacks were numerous, but they were without any apparent effect upon the general condition. She was seen in one attack.

The starting of these attacks immediately after an emotional shock, and the character of them, seem to indicate that they were hysterical in nature.

Case 7. The next case was another one in a colored girl. Alice H., thirteen and a half years old, was first seen at the Children's Hospital (P-2) on July 6, 1901. The patient was the second child of eight, four of whom had died in infancy of bronchitis and digestive troubles. The other children were well. The birth was normal and so was the history till she had scarlatina at the age of six, followed by acute articular rheumatism, since which she had never been well. She had had no other acute illness except chills and fever a year or so later.

About nine months before she was first seen the left arm began to feel numb, and she complained of a "beating pain" in the palm. Then the numbness spread to the left leg and later to the right leg also. In January she had a fit lasting two hours. Two weeks later she had another, and still another two weeks after that. The last one was four months before. The numbness continued. After the fit she shakes all over. Has bitten the tongue, and once wet the clothes and passed feces. The movements begin in the left arm, and finally become general. About twenty minutes before they begin there is a sensation of numbness in the left arm. She also complained of a great deal of pain over the eyes, and with this sometimes had vomiting. Of late she had attacks in which she would shake violently, without loss of consciousness. She had polyuria in the attacks. Lately it had been noticed that she had become very much absorbed and forgetful.

On examination there was no paresis of the face or extremities. The pupils and muscles of the eyes were normal in every way, and the fundi were normal on ophthalmoscopic examination. The tendon reflexes were lively but alike on the two sides of the body, and there was no ankle clonus. The plantar reflexes could not be obtained. Sensation for touch and pain seemed slightly diminished on the whole left side, in the face, trunk and extremities. Attempts to elicit the reflexes at times brought on a twitching of all the extremities, and the child cried out, but when questioned said she was not hurt. She cried several times during the examination.

At a later visit the following account of the attacks was given, which is perhaps more accurate than the one first obtained, and agrees better with the character of the attacks seen at the hospital. They were said to consist of a violent shaking, which affected the whole body, including the arms, legs, trunk and "back" (opisthotonos?). The eyes would wink violently, and a spoon had to be placed in the mouth to prevent biting of the tongue. The mother also said that four months before she had had so much pain in the legs that she could not walk. On July 24 she had an attack at the hospital in which she screamed with pain in the knees and arms, with violent movements of the head, arms and legs, without loss of consciousness. In another attack she first complained of pain in the left side of the back, below the scapula, and there was twitching, beginning first in the left leg, followed by rapid flexion and extension of the leg on the thigh. These movements did not stop on pressure on the iliac region, but were controlled by the child holding the leg extended by pressing with the hands upon the knee. After the attack she said that the leg felt disagreeable, but not numb, and there was no pain.

CASE 8. Walter E. F. was first seen at the Children's Hospital (X-36) on September 10, 1904. He was an only child, and eleven years old. The only illness he had had was pertussis at the age of four. There had been no fright. He had been in the country, away from home for a year, and about three weeks before he had had two peculiar attacks, and since his return home, five days before, he had had several more. In these the boy seemed cold and frightened, and the teeth chattered, but there was no loss of consciousness. Some of these attacks came during sleep, waking him up. One attack which we observed began without warning with a twitching of the lower jaw, which was apparently beyond the boy's control, but even during the height of the spasm he could open the mouth wide in response to request. He was perfectly conscious and the pupils were not changed, and reacted to light normally during the attack. There was no froth at the mouth and no succeeding drowsiness or feeling of weariness. The boy said that the jaws felt a little stiff during the attack. There was no amnesia for the attack. The attacks were continued during his attendance of four months at the hospital, at times two or three a day, but finally they lessened, and during the last three weeks there was only one slight attack, so it is probable that they ceased. The physical examination of the boy was entirely negative.

These attacks are somewhat difficult to classify and the etiology was not clear, but their sudden onset, the character of the muscular spasm, and their rather rapid subsidence seem to show them to have been of a hysterical nature.

Attacks of dyspnea in children are occasionally due to hysteria, of which the next three cases are fair examples.

Case 9. George M., twelve years of age, was seen at the Children's Hospital first on January 7, 1899. (I-12.) The father was born in Germany, the mother in Rhode Island. The latter was supposed to have consumption till she was thirty years old, ten years ago. Eight years ago she had an attack of "nervous prostration" with convulsions. She is also subject to unilateral headaches, which come every two or three weeks. The boy's half sister, twenty years old, about a year before had a stroke of "apoplexy," it is said, without any known cause, which affected both legs. She is also said to have kidney trouble, probably some disturbance of the control of the bladder. This person was not seen, but the description seems like some spinal cord disease. The boy is the first child of the second marriage, and had one brother at the time, who was two years old and well. He had pertussis at three years and afterwards had a persistent cough with some fever and loss of flesh for some time, but for the preceeding two years he had been well.

About two years before he began to have attacks of gasping, after which he would struggle and the face would become blue, the eyes bloodshot, and the body rigid. There was no twitching of the limbs and no loss of consciousness, the duration of an attack was about fifteen minutes. At first the attacks came about once in two or three weeks, but they had grown more frequent, and in the previous week he had had ten. There was no sleepiness after the attack. They usually came during the afternoon. The parents thought he was going into consumption, and the mother had been in the habit of taking his temperature frequently in the afternoon, and often found it 99° to 100.° After the attack the boy has what the mother calls a nervous chill, and he has complained constantly of a terrible pain in the left side. He dreads being alone and cries much, and is restless and nervous, walking about between the attacks. He is said to be feverish every day, and at these times wishes to eat all the time.

The physical examination was entirely negative, including the lungs and the fundi, and there were no disturbances of sensation.

These attacks continued pretty frequently, but with intermissions, for four months, and then almost ceased, and for the six weeks before his last visit to the hospital he had had none.

Case 10. Mary E. C., nine years of age, was seen at the Children's Hospital February 7, 1906. (BB-148.) The father died of phthisis, and the mother stated that four of her children had died of spinal meningitis at different times, seventeen, six and two years before. Three other children were living and well and were not nervous.

Four weeks before, the child had pain in the left ear for several days, but there had been no discharge. Soon after this she began to have attacks of crying, and choking or smothering, as if she could not breathe. She had had four or five of these. The first one lasted an hour, and the last twenty minutes. The attacks began with sneezing and then she would shake. There was no convulsion, and no pain or headache. There was no cough, and the ear had not troubled her for a week. The examination was entirely negative, and during the next month she had no more attacks and was apparently cured.

CASE 11. Loretta B., eight and a half years old, came to the Children's Hospital on October 26, 1904. (X-130.) There was one other child, a year and a half old, who was well. Nine months before the child had been ill with what was called "malaria," the illness lasting five weeks. She recovered but ever since she had had peculiar attacks in which she thinks she is going to die, and says she cannot get her breath. The attacks last about ten minutes, and during them she rubs her hands together and walks the floor. They have been as frequent as two a day of late. Her temper is good, and she plays, but is inclined to worry. She has complained of some pain in the left side of the abdomen, but not at the time of the attacks. The child was rather poorly nourished but the examination was otherwise entirely negative.

On closer questioning it was found that the attack of so-called malaria began with croup. The throat was not sore, but she was very hoarse and had high fever and delirium. She also had chills in which she shook, and she seemed to be better every other day. The child recovered perfectly in three weeks, and was entirely well for about fifteen months, when she had a recurrence of the attacks, which came about once a day. This time the trouble lasted about a month but was not as severe as before.

The next case is one in which we have only psychical symptoms which seem from their character and the course of the trouble to put it in the group of hysterical cases, though it may be that we should differentiate such cases.

CASE 12. Regina S., five years of age, came to the Children's Hospital for the first time on October 27, 1906. (EE-110.) Her mother was somewhat nervous but had no nervous disease. The brothers and sisters were well. She had had, at the age of ten months, what was diagnosed as a slight sun-stroke, when she was dull and sleepy for three weeks. Two weeks before she was seen she fell on the steps, striking the lumbar region on the edge of a step. There was a slight bruise, but she did not complain of the back after the day of the fall. A few days later a change in her disposition was noticed. While she had always been easy to manage, a good child and cheerful, she became fretful and restless, moving the fingers constantly, and making grimaces. She also had spells of crying, and of waywardness, saying unclean words, and when reproved said she could not help it, and that her head felt funny. She also talked to herself, and preferred to be alone.

The physical examination showed nothing abnormal. There were no choreiform movements, and the spine was perfectly normal except for a slight abrasion in the lumbar region, but no tenderness, and the urine was normal. She was isolated in the hospital and in three weeks was discharged well, the symptoms having disappeared in about four days after treatment was instituted.

CASE 13. This case is one which illustrates very well the form of hysterical astasia abasia in children. Abraham M., eleven years old, was seen at the Children's Hospital on January 5, 1895. (A-238.) The patient was the third child of six, the others being well. The previous history was of no importance, measles at two years and scarlet fever at five being the only illnesses. In December, 1893, about a year before he was seen, he had an illness in which he complained of feeling sick, and could not eat, and was feverish and chilly. He also complained of pain in the head, and the light seemed to trouble him, but there was no retraction of the head. He was ill at home for three weeks, and then was at a hospital for two weeks more. Before going to the hospital he was unable to stand or walk, but could move the legs, and when he returned home he could walk. After two weeks at home this difficulty returned, this time, however, with no other symptoms, there being simply the inability to walk, and some complaint of pain in the head, and the parents said that he seemed frightened at his own shadow. This attack lasted only a few days. The following May he had a similar attack, lasting four days, from which he recovered suddenly. He told his mother that he could walk and got up and did so. In October, 1894, he was knocked down and was unable to walk for twenty minutes. When he was seen at the hospital he was complaining of pain in the thighs, arms, back and occasionally in the head. The mother thought he could not walk as straight as other boys.

The examination was entirely negative, except for moderate tenderness on pressure at the sixth thoracic spine, and some astigmatism.

CASE 14. This case is an excellent illustration of the type of flaccid hysterical paralysis in children. Morris Q., ten years of age, was first seen at the Children's Hospital on January 23, 1907. (FF-30.) Two younger children and the parents were well. He had had measles four years before and this had been his only illness except that since the preceeding June he had had several attacks of sharp pain in the hips, knees and ankles, when they would be tender to touch. Three days before he was seen he burnt the back of the left hand very slightly, and since then the left arm had hung helpless and motionless from the shoulder, there being no movement of the fingers, hand, forearm, or at the shoulder. There had been no pain in the arm or joints.

The examination showed a total flaccid paralysis of the whole left upper extremity, with no atrophy, no tenderness, and normal sensation.

At the next visit on January 26, three days later, it was reported that on two occasions, about ten hours together, he had used the arm perfectly normally and then had suddenly relapsed. At the time of this visit there was slight power in all movements. Four days later it was reported that the boy would use the hand naturally on getting up in the morning, but after a time he would begin to complain of pain in the arm and of its being weak and in a short time the arm would drop limp to the side.

The boy recovered entirely in a short time and has remained well since.

CASE 15. Polly E., nine years old, was first seen at the Children's Hospital on December 18, 1903, when she was admitted to the hospital. (U-30.) Two weeks before she had fallen down two steps. She walked home and for a week did not complain, but about this time the mother noticed that she walked " crooked." On admission she walked on the toes of the right foot, not putting the heel to the ground. The X-ray photograph showed nothing abnormal. The foot was put up in plaster at a right angle for about ten days, when the plaster was removed, and immediately after this she walked with the heel on the ground, but after a few days it was noted that she only placed the toes on the ground as before, though she did not limp badly. This was on January 11. On January 27, 1904, when she was seen at the Out Patient Department, it was noted that when she walked the right foot was reached forward, the toes placed on the ground and then with a hop the left foot was brought up to the right one. The knee jerks were very lively but equal, and there was no ankle clonus or Babinski's sign. When lying down the foot could be flexed on the leg, and the contraction nearly completely disappeared. There was no change in sensation for touch or pain anywhere on the body. There was some tenderness in both iliac regions more on the left. There was no tenderness of the spine or on the chest. The latter part of February there had developed some clonic spasm in the calf muscles which was well marked when the attempt was made to dorsiflex the foot. A plaster bandage was again applied, but the gait remained the same, the foot with the bandage being slid forward first, and then the other foot advanced by hopping without throwing the weight on the right foot. On March 12 she was again admitted to the wards, when it was noted that the right gastrocnemius was held in constant contraction, which was increased by attracting her attention, but relaxing slightly with manipulation, and when relaxed there was free movement in the ankle joint, but considerable grating could be felt as it was moved. The right knee jerk was somewhat greater than the left at this examination, but there was no ankle clonus, and the plantar reflex was normal and also the fields of vision, and there was no anesthesia or hyperesthesia. A systematic attempt at training was now made by analysis of motions and careful execution of each part of the step, but failed entirely to benefit. Apomorphia with suggestion of improvement and etherization with suggestion in the same way were also without benefit. One day, under the stimulus of singing by visitors in the ward, she took a few steps very naturally, but this was only temporary. She was discharged not improved, on April 21, 1904.

She was not seen again till September 14, when the condition was the same, with tonic spasm in the right gastrocnemius, the right knee jerk greater than the left one, but no ankle clonus or Babinski's sign, and sensation normal. On September 30 she was readmitted to the hospital, where under ether the spasm relaxed completely, and finally, on October 11, tenotomy of the tendo Achillis and the ham strings was done, and plaster applied. On November 10, when the plaster was removed, it was noted that it was difficult to put on because of the spasmodic contraction of the toes and foot. On November 19, with the plaster bandage on, she was still walking in the same way, sliding the right foot along, and hopping on the left one. On January 10, 1905, the plaster had been taken off two weeks before and she was still walking by hopping on the left foot, but with the heel of the right foot on the ground and without the marked plantar flexion of the foot that had been present before the operation. She could dorsiflex the right foot well, but not always, as at times spasm of the gastrocnemius prevented. On March 13 she was walking much the same as before the operation with contraction of the tendo Achillis and the knee held stiff, while passive motion at the ankle, knee and hip was good, except rotation, which brought on spasm.

She was next seen on April 18, 1905, when she had been unable to sleep, eat or sit down for four weeks. She gets up on her knees on a bench and bends the body back repeatedly. The right knee is contracted, and she cannot dorsiflex the foot. When she is put in a normal sitting position she gets in a sort of opisthotonic *arc de circle,* with jerky movements which lift the buttocks from the seat.

She then came under the care of the Massachusetts General Hospital, where she made some improvement in the severity of the symptoms, but was not cured, when she succumbed to some acute disease, and at the necropsy a normal nervous system was found.

The next case was somewhat similar but drifted off without treatment and the outcome is not known.

Case 16. Stanley W., eleven years old, was seen at the Children's Hospital on May 11, 1901 (O-124), and had been perfectly well till the age of seven. At that time he hurt the right heel on a stone and ever since, for four years, he had walked on the toes of the right foot. A year before a tenotomy of the tendo Achillis was done without any distinct gain.

On examination there was no paralysis, and no atrophy of muscles, but there was a contracture of the tendo Achillis on the right, which could be overcome on relaxation when distracted, while by forcible effort to dorsiflex the foot the calf muscles are made to contract very strongly. The knee jerks were increased and about equal, but there was no ankle clonus, and no Babinski's sign, and the muscles reacted normally to the faradic current.

CASE 17. This case illustrates well the multiplication of symptoms such as is apt to be seen in older children. Frances L., fifteen years, was seen at the Children's Hospital June 9, 1897. (F-28.) The history of the onset of the trouble is defective, but on examination it was noted that she walked with the left knee bent and there was hyperalgesia of the left leg. Passively the left knee could not be fully extended. The knee jerk on the left was increased, and there was a front tap contracture on that side. There was tenderness over the temples and the lumbar spine as well as over the left scapula, above and below the left breast, and in the left iliac region. There was also well-marked contraction of the field of vision in the left eye.

CASE 18. Gertrude F. was first seen on May 26, 1900, when eleven years old. (Children's Hospital, M-78.) The family and previous history showed nothing, the child having always been well, with the exception of having measles and pertussis, and she had never been nervous or excitable. Two weeks before she had been struck on the right hand by a cane, the blow leaving no bruise. That evening tremor of the right hand began, but it had not been constant. For three days she had complained of pain in the ring finger of the right hand. There had been no other symptoms. The tremor was fine, rapid, from eight to ten per second, regular, and affected the right arm. There was a general diminution in the strength of this arm, especially in the grasp, but no paralysis, no atrophy, and all the muscles reacted normally to faradism. There was slight hyperalgesia of the whole right upper extremity, while the perception of touch was normal. The triceps reflex was good and equal in the two arms. She was next seen at the Boston City Hospital (11507) on October 21, 1904, when fifteen years of age. The tremor she had had in 1900 had lasted two months. She had then been well till a month previously, when she was startled by a cat jumping over her as she lay in a hammock. The tremor returned a few days after this and had been persistent. She also cried often without reason and felt depressed. The menses had appeared six months before and had been irregular. She was treated by suggestion and improved, but was made worse for a time when her brother accused her of faking and after crying spells. The tremor was made to stop at a definite hour named to her as a test of suggestion and in three weeks had entirely ceased.

CASE 19. Elizabeth McG., thirteen years of age, was seen at the Boston City Hospital on March 8, 1907 (12983). She had sprained her right hand three years before and it had been put up in splints at the hospital. Two days before she was seen she fell, striking the elbow and the hand. The pain was severe enough to keep her awake two nights. There were no bruises, but extension of the arm and other movements were painful. The hand had been very cold. On examination the right hand was found to be very much colder than the left one. The circumference of the right upper arm was 21.5 cm. and of the left 22.0 cm., while the right forearm measured 19.5 cm. and the left 20.0 cm. The pulse was equal in the two wrists, but seemed of less volume on the right, while the circulation in the hand was good, as judged by the rapidity of the return of color after pressure. There was no paralysis of any muscle, but all the movements of the hand were weak, while the upper arm muscles were strong. She could flex and extend the arm fully, as well as supinate and pronate. The flexion of the fingers was complete, but weak, the grasp registering 0 on the right and 40 on the left. Abduction and adduction of the fingers were good, and so was extension of the hand. The muscles all reacted normally to galvanism and faradism. Sensation for touch over the right hand and forearm was diminished and almost lost on the dorsal aspect of the three outer fingers. There was absolute loss of pain sense in the hand and arm up to a point just below the elbow. All forms of sensation were normal everywhere else on the body. The knee jerks were lively and equal, and there was a patellar twitch. The ankle jerks were lively and equal, but there was no ankle clonus, and the plantar reflex was normal and alike on the two sides. The abdominal and epigastric reflexes were lively and equal.

CASE 20. Agnes L., thirteen years of age, was seen at the Children's Hospital on March 6, 1907. (FF-130.) She had been admitted to the hospital on February 6, 1907. In the preceding September she began to complain of headaches, which were quite severe and lasted all day. She also complained of a dull constant pain in the left leg, which changed its position frequently, from the foot to the ankle, leg, thigh and hip. At first she could not put the foot to the ground. She fainted once at the first of the illness. She had had considerable nausea at irregular intervals about two months before, which was without relation to the ingestion of food and without vomiting except once, when she vomited a large amount of greenish material. Examination was entirely negative in every way, including the fundus, except for a limp with the left leg caused by a failure to get the heel upon the ground, though the foot could be dorsiflexed fully, both actively and passively, when she was not walking. The headaches ceased almost at once when she was told that she could not return home till they were better. She was said to have had high fever every afternoon but there was none during her stay in the hospital. The pain in the leg at first shifted occasionally from one leg to the other, but later was in the left leg and below the knee. There was no paralysis or paresis and no contracture though the limp and the failure to get the heel to the ground continued. All the joints and the spine were normal. There were no tender areas, no disturbance of sensation anywhere and no palatal anesthesia.

The pain continued, at times disappearing for a day or two but returning, and the child is still under treatment, though there has been some improvement.

CASE 21. George G., eleven years old, was seen at the Children's Hospital on May 9, 1900. (M-52.) He had always been a nervous boy, his head shaking, and being uneasy, with some twitching. A year and a half before he fell on the floor, injuring his left elbow. It was badly swollen and splints were applied for three weeks. After this he complained a little of the arm, saying that it was numb, and occasionally dropping things. The mother thought this was imagination till lately, when he had complained more. He had cried in school from the pain in this arm. He was restless at night and seemed to have pain in the arm then. Some slight digestive symptoms, pain and gas, were the only other things noted. The physical examination, except for a lateral tremor of the head, showed nothing abnormal. In seven weeks the pain had entirely disappeared.

These cases illustrate the most common method of origin of pain as a hysterical symptom in children. That is the persistence or increase of a pain from some injury or painful inflammatory affection. Two of these cases followed an injury, while in the third case, because of the presence of fever, it is possible that the pain arose from some joint trouble.

The next case is one of aphonia, a fairly frequent hysterical phenomenon in children, though rare among our cases at the Neurological Department, probably because such cases go more frequently to the physicians for throat diseases.

CASE 22. Vina M., thirteen years of age, was seen at the Children's Hospital July 1, 1896. (D-72.) The family history and that of the child were unimportant, except that at the age of nine she had scarlet fever, and after that for a time had a twitching of the face, possibly a chorea. She had not been as well as usual for some months, being irritable, and five months before she had had quite severe twitching of the hands, and a little later of the face also, and some in the legs. This twitching, which from the description seemed to be an attack of chorea, stopped about two and a half months before she was seen. At that time she complained of severe headaches and "numb spells." She has had these in school so that she has almost fallen to the floor. She also complained of the stomach and bowels which she thinks are bloated, and she was very constipated. Two months before she suddenly lost her speech and could make only unintelligible sounds. After a week she was able to talk again, but indistinctly for two weeks and then ceased speaking entirely. For five months she had had the numb attacks spoken of above, and these lasted for from five to ten minutes and affected the hands only. At first they came daily, but she had had none for a month till recently. For about the same length of time she had complained of attacks of dizziness lasting for about fifteen minutes in which she could not see. On examination the child could not protrude the tongue or speak, but there was no paralysis of the face or extremities, the sensation was normal for touch and pain, there were no areas sensitive to pressure and the reflexes were normal, the whole examination being negative, except for the loss of power in the tongue.

In our experience choreiform movements in children which are hysterical in character are rare, the following being the only cases where this diagnosis seemed justified by the character and course of the trouble.

CASE 23. John K., eleven years old, was seen at the Children's Hospital March 11, 1905. (Y-110.) His father was dying of tuberculosis. Two other children were normal. The boy had had diphtheria six years before and chorea four years before. For ten weeks he had not been able to use the right arm or the right leg. The arm twists about and he holds the knee bent, while at other times the leg is thrown about and he falls often. On examination he walked with the right knee partly flexed and held fixed by contraction of the hamstring muscles. He could, however, relax this contraction and stand with the knee straight, and in putting on his drawers he extended the leg fully. He fell several times, crying out that he had pain in the knee, but immediately quieted down and seemed entirely free from distress or peculiarity except for the peculiar position of the leg and inconstant, irregular, choreiform movements of the right hand and arm. The arm was held extended, pronated and every now and then was carried backward by a series of jerky twisting movements. The arm, however, could be readily flexed. When he tried to write he could not hold the pencil on account of the unsteadiness of the grasp, the pencil being frequently dropped and the incoördination also interfering. He could use the pencil perfectly well with the left hand. The boy was extremely emaciated, the heart was enlarged and showed a mitral systolic murmur which was transmitted into the axilla. The visible mucous membranes were slightly cyanotic. No tenderness or pain in the joints could be made out on passive motion, and there was no muscular spasm. The left knee jerk was present, the right not obtained, probably because he did not relax the muscles.

CASE 24. Bessie R., fifteen years of age, was seen at the Children's Hospital on March 10, 1900. (L-172.) She was born in London but of Russian parents. There had been no other illness. When ten years old she began to have twitching of the muscles, pretty generally distributed, and since that time she had almost never been free from it, though the severity varied at different times. It had been very severe for the preceding two weeks. The menses had not appeared. She had had considerable headache but no other symptoms. The habits were good as regards the use of tea and coffee. On examination there was a severe choreiform twitching of all the muscles of the extremities and trunk, but those of the neck and face were very little affected. Occasionally a spasm of the diaphragm produced a gasp in the breathing. Nutrition and general development were poor. There was no paresis, spasticity or change in the reflexes. The heart showed no arrhythmia and the sounds were normal.

The child was seen several times between March and the middle of May, during which time there had been no change. She was next seen in November. Soon after the visit in May the twitching had ceased entirely, rather suddenly, and she had remained free from it till about the first of November when it began again. At this time the face was practically free but the muscles moving the shoulders and all of those of the extremities, both upper and lower, were moved violently. She could feed herself and do most things for herself. In December it was said that she had been vomiting every Friday night. The twitching continued during the remainder of her attendance at the hospital up to the first of January, 1901, at which time there had been a slight improvement.

This case may belong among the myoclonias, but the sudden change in the course of the trouble made us think it probably hysterical.

In regard to the frequency of hysteria in children it is difficult to draw conclusions. At the Boston City Hospital, where there is a large neurological clinic, it must be remembered that the attendance is limited to residents of Boston, and furthermore that in all probability a great many of the cases of nervous diseases in children which would naturally be seen there go to the special hospital for children, while at the Children's Hospital the cases are drawn from the whole of New England, and there are no adults treated from which to obtain relative figures. At the Neurological Department of the Boston City Hospital from May 3, 1901, to April 17, 1907, practically five years, 4,068 cases of nervous or suspected nervous diseases were seen. Of this number the diagnosis of hysteria was made 105 times. That is, the hysterias constituted 2.6 per cent. of all the neurological cases. The cases in children at this hospital during this period were only 6 or 5.6 per cent. of the total number of hysterias, and a little over 0.1 per cent. of all the neurological cases. This is a much smaller proportion than Bruns gives as his experience. He saw 144 cases of hysteria in children, as against 550 cases in adults, and this in about 8,000 cases of nervous disease. That is, his cases of hysteria in children were 20 per cent. of all hysterias, as against 5.6 per cent.; and the hysterias in children constituted 2 per cent. of all cases as compared with 0.1 at the Boston City Hospital. His total hysterias made up 8.7 per cent. of his 8,000 cases and ours were 2.6 per cent. Duvoisin, in his statistics of 24 cases of hysteria in children, gives these cases as 0.41 per cent. of all cases. Steiner gives the hysterias of childhood as 16 per cent. of all cases of hysteria.

At the Children's Hospital from March, 1894, to May, 1907, 3,240 cases were seen in the Neurological Department, in 19 of which the diagnosis of hysteria was made, a little less than 0.6 per cent. of all neurological cases. Hysteria in children in this country, as well as in adults, judging from these figures, seems to be less frequent than in Germany, while the proportion of children with hysteria to the adult cases of the same disease would also seem to be much less, though this is more difficult to determine.

Of the twenty-four cases reported in this paper 15 were in girls and 9 in boys. The youngest was 5 years and the upper limit of age was placed at 15, at which age there were two cases. This upper limit was chosen for the sake of comparison with tables of other writers.

	Girls.	Boys.	Total.
5 years	1	0	1
6 years	0	0	0
7 years	1	0	1
8 years	1	0	1
9 years	2	2	4
10 years	0	1	1
11 years	1	5	6
12 years	2	1	3
13 years	4	0	4
14 years	1	0	1
15 years	2	0	2
	15	9	24

More than half of these cases were between the age of 11 and thirteen years. Of cases 6 years or less there was but one. Meyer in his 103 cases found very similar proportions.

	Girls.	Boys.	Total.
5 years	0	1	1
6 years	2	2	4
7 years	0	1	1
8 years	4	3	7
9 years	8	4	12
10 years	12	5	17
11 years	10	8	18
12 years	16	8	24
13 years	9	3	12
14 years	4	2	6
15 years	0	1	1
	65	38	103

Clopat and Goldspiegel's table, quoted by Philippe in Grancher, Comby and Marfan's text-book on the diseases of children comprises 272 cases.

	Girls.	Boys.	Total.
Infancy	19	1	20
3 years	0	1	1
4 years	1	1	2
5 years	4	2	6
6 years	3	2	5
7 years	15	4	19
8 years	16	6	22
9 years	15	7	22
10 years	18	15	33
11 years	24	17	41
12 years	22	13	35
13 years	27	16	43
14 years	12	8	20
15 years	0	3	3
	176	96	272

From these tables it is seen that in younger children the proportion of boys to girls is about 1 : 1, while in older children it is about 1 boy to 2 girls.

In regard to heredity in hysteria our cases are perhaps too few to throw much light upon the question. I have rejected a case in which a parent died of a shock, and one where a half sister was said to be paralyzed in both legs, as these were cases in which we should infer no hereditary taint. As regards similar heredity we find this in five cases. In one the mother had "nervous prostration" with severe convulsions, probably hysteria, or possibly epilepsy. The father was reported to be nervous once, the mother twice, and once a sister was markedly nervous and a patient at the hospital for this. In the other cases there was no history of a functional nervous trouble to be obtained or it was distinctly denied, the cases being about equally divided.

In regard to the impairment of resistance of the child from alcoholism or constitutional disease in the parents, we obtained a history of this in four cases. In three one parent or the other had tuberculosis or had died of it, and in one of these cases several children had died of what was probably tuberculous meningitis. In one case the child's father had drunk to excess before the birth of the child.

As in Meyer's cases, trauma was perhaps the most frequent exciting cause, examples being burns, blows, falls and a dog bite. This was by far the most frequent cause if we include under this head the cases of fright, the psychical trauma of Binswanger. Direct suggestion played a part in the evolution of some of the cases as the one where the child developed convulsions shortly after seeing the mother in a convulsion from uremia, and in the case where the sister's excitement appeared to start the manifestations of the disease in the brother. Overstudy seemed a possible cause only once. Parental anxiety and the fear of tuberculosis seemed a cause once, and here, as so often is the case, the character of the symptoms developed bore a direct relation to the form of the suggestion, in this case appearing as a disturbance of the breathing. At other times the suggestion appears to have been received directly from some illness from which the child has suffered, as in the case of the child who developed the attacks of dyspnea after some throat trouble, and the case of astasia which evidently had its origin in an attack of some acute disease.

The psychical changes in these children were as a rule slight, aside from some inclination to crying, irritability and excitability.

The question of the so-called stigmata in children is interesting. On the whole, their presence is rare, and in the cases which have lasted some time they are not very common, their frequency varying more with the age. The contraction of the field of vision was only found twice in this series, once in a boy of nine, where it was slight, and once in a girl of fifteen. Since this series of cases was completed I have seen this symptom very well marked in a boy of about eight, with a hysterical paralysis of the arm. Again, the disturbances of sensation, as anesthesia and hyperesthesia, were rather rare. In fourteen cases it was expressly stated that there was no disturbance of sensation, and in one of the severest cases (Case 15) there was no trouble of this sort all through our observation of it. Three times slight anesthesia was found and five times more or less hyperesthesia, almost always in the form of a hyperalgesia. These disturbances were rarely seen in the form of an affection of one half of the body, but more often of the affected limb, especially where there was pain in the limb, and less often when it was paralyzed. Sachs, Jolly, Binswanger, Henoch and others speak of anesthesia being frequent. Our experience is more that of Meyer, who found diminished sensation only 13 times in his 103 cases, and never a marked anesthesia. He found anesthesia of the mucous membranes (throat) only three times, while in our cases it occurred only once. He also found hyperesthesia more common than a diminution of sensation. Tender points in the abdomen, chest or spine were observed five times, in one of which the tender point could be regarded as a hysterogenetic zone. In the other cases no such areas were found. Meyer found tenderness of the spine in 9, and of the abdomen in 14 cases of his 103. Pain Meyer found to be a frequent symptom, and this was in general true in our cases, in three cases it being the most prominent symptom. Contractures were found in four of our cases, and flaccid paralysis once, astasia once, aphonia once only, tremor once, choreiform movements twice, while convulsions or minor spasmodic affections were seen in a third of all the cases, eight, four girls and four boys, and fainting attacks in one other girl. Meyer found paralysis or contractures in one fourth of his cases, aphonia seven times, flaccid paralysis twelve times, spastic paralysis seven times, and both flaccid and spastic paralysis once. Paresis only we found fairly often, especially in the cases with pain. It should be noted that the pain in these cases was never a joint pain. Chorea magna was absent from our cases unless some of the cases I have included under minor convulsive attacks be classed in this group. The tendon reflexes were not often disturbed, but at times were somewhat increased. Ankle clonus and Babinski's sign were never observed. Hysterical cough and vomiting were not seen among our cases, nor were any trophic disturbances observed. Neither did we see any of the attacks of colic with separation of the abdominal muscles, which Friedjung has recently reported as cured by suggestion.

The question of the existence of infantile hysteria must be at least touched upon. In the diagnosis of hysteria in children as in adults it is first necessary to rule out other diseases, though in some cases the possibility of the combination of organic disease and hysteria must be considered, as in a case recently seen at the Children's Hospital where a girl of about nine years who had an organic hemiplegia dating from infancy with moderate incoördination rather suddenly developed marked spasm in the affected limbs so that she could hardly walk without the shoes, as the spasm drew down the foot and toes to such a degree that the dorsal surface of the toes touched the ground first. This excessive spasm was also evident in twisting athetoid movements of the paralyzed arm associated with attempts to walk. The spasm on attempts at voluntary movement disappeared almost completely after a few weeks and all through there was considerable variability in the condition from day to day. This combination of organic and functional disease was also probably present in Case 5 of this series. Though the difficulty of diagnosis is much increased by such possibilities as these of which I have just spoken, if not at first clear it can usually be made out by watching the course of the symptoms, the hysterical cases often betraying their character by sudden cure or shifting of the symptoms in a way that is impossible in organic cases. Many cases have been reported as hysteria in children which are undoubtedly cases of organic disease, as one case recently reported by a French writer as hysteria in a young child, where there were convulsions, high continued fever, ankle clonus and Babinski's sign present, or the case of Chaffey, where a boy of ten, with persistent vomiting and optic neuritis, due to an endothelioma posterior to the right optic thalamus, had been shown by him in the earlier stages of the trouble as a case of anorexia nervosa, due to the mental shock of the loss of a favorite sister. The chief advocate of the frequent existence of hysteria in infants and nurslings is Chaumier, who in 1888 at the Congress at Grenoble, and at the French Academy of Medicine in 1891, maintained this position. He claimed that it exists in nurslings in three forms: (1) Emotional form, as in rages for slight or no cause; (2) faintings, where infants when agitated and crying hard become cyanotic, the limbs stiffen, and then suddenly become quiet, the face pale, muscles rigid, and there is loss of consciousness, fainting, and (3) convulsions, the characteristics being that they are short and in many cases thought to be due to meningitis, but the child gets well, and the only symptoms are the convulsions. This position has been questioned by most writers since, including many of the French authors, though most of these content themselves with quoting Chaumier as authority for the statement that many of the convulsions of infancy are hysterical, usually adducing as a reason for believing this the fact that many adult hysterics give the history of having had convulsions in infancy. Ollivier, who had been appointed by the Academy on a committee to investigate, in an article in 1892, in reviewing this stand of Chaumier, questions his conclusions, stating that it is impossible to accept them. Chaumier thinks adenoids a cause of this infantile hysteria, which Ollivier investigated and denies. Certainly in all of Chaumier's three classes of cases the evidence of the trouble being hysterical is very vague and unsatisfactory, amounting to little more than a personal belief. For his first two classes of cases proof one way or the other is very difficult, and for the convulsive attacks what proof we have seems to be against his view. Thiemich has shown that in many of the convulsions of infancy there is a tetanoid condition, with increased galvanic irritability of the nerves, and concludes that they are more dependent upon food and digestive conditions than anything else. Bezy and Bibent, in their monograph on hysteria in children, say that in the case of convulsions in infants we must first rule out intoxications and infections before we are justified in calling such attacks hysterical, and this cannot often be done. This is a point of view with which I fully coincide, as well as practically every German and American writer. Bezy and Bibent say that of 3,000 children examined all those with hysteria were at least five years of age. There have been a few cases reported occurring between the ages of 2 and 5, however, in which the diagnosis is correct. Clopat, aside from the infantile cases in his table, gives three cases in children under five. Bruns' youngest cases were two of three years, one of contracture of the foot and one of tremor of the hand, both cured by suggestive treatment. Thiemich gives his youngest case as in the second half of the second year. Bardol reports a case in a boy of three and a half years. Ollivier, however, rejects one supposed case in a child of twenty-two months who had a convulsion at eight months which left a permanent hemiplegia. Sollier reports a case of typical hysterical convulsions in a girl of five and a half which were cured in five days. Steiner's first case of a boy five and a half years old I should reject, as there was nystagmus, inequality of the pupils, diplopia and right facial paresis with recovery. He states that there was some hydrocephalus and makes a diagnosis of pseudo-meningitis and hysteria, which seems unnecessary if hydrocephalus was present as he thought. His last case, a girl five and a half years old, is also questionable, where hallucinations developed after a slight injury, accompanied by slight unilateral tremor and paresis. Hecht has recently reported a case in a boy of four with muscular spasm and pain succeeded by flaccid paralysis of an arm after a slight injury which was cured by a single application of strong electricity, and another case in a girl of four with hysterical convulsions and astasia, while his fifth case, in a boy of five, was one with hysterical cough followed by aphonia, both quickly cured, the first by emetics and the second by strong faradism. These are the youngest cases I have been able to find in a fairly extensive search of the pediatric and neurological literature which did not seem to me extremely doubtful to put it mildly.

The earliest cases of hysteria in children are probably the imitative forms where the symptoms of some person with hysterical or other disease seen by the child are reproduced more or less exactly as the convulsions after seeing epileptic attacks in other children or hysterical attacks of the mother. With these come also the cases produced by autoimitation, where a symptom of some organic disease remains as an hysterical symptom, such as a persistent cought after the cure of some chest trouble, an aphonia after diphtheria, or recurrent attacks of astasia after some acute illness or an acute joint affection. Of course, one must remember in such cases that the organic causes of these symptoms are the more common, such as a multiple neuritis or recurrent joint disease.

Injuries, especially in the form of trifling traumata, are seen very frequently as the exciting cause of hysterical trouble in children, but in these cases the complicating effect of sympathy is well illustrated by several of Hecht's cases as well as by some of ours. The cases of paralysis produced by pure fright, the psychical trauma of Binswanger, though this includes other emotional disturbances than fright, as well as the very frequent disproportion of the physical injury to the severity of the affection, shows the large element of suggestion in the cases caused by trauma. As Thiemich well says, all hysterias are suggestions in form, but part are in content not suggested, but a pathological reaction to emotional disturbances. This is often seen with especial clearness in the cases of hysteria in children, where the simplicity of the mental life and processes shows us more clearly the relation of the mental processes to the disease than is possible in the often extremely complicated mental processes of evolution of the disease in the adult. Writers on hysteria give many causes for the disease, usually dividing them into predisposing and exciting causes. In the first group the most important is heredity, which Charcot especially insisted upon. If our concept of hysteria as a mental disease is correct we may be compelled to accept this view, though it begs the question somewhat, as cases of hysteria in which there is direct heredity can usually be explained as well by the theory of suggestion as by heredity, and in the cases of dissimilar heredity suggestion usually plays an important part. In any event the presence of a neurotic predisposition appears in such a small proportion of the cases in most recent collections as that of Meyer, where in 103 cases he found 11 with severe and 15 with slight nervous troubles in the family, that one is inclined to doubt to a large extent the tremendous importance of this factor as one is inclined to reject the similar assumption in certain forms of mental disease. Some writers give much higher figures, however, probably from less careful scrutiny of the facts in each case, as Duvoisin, who reports heredity in 58 per cent. of his cases, which number only 24, though this variation may be accidental, as he found tuberculosis in the family in 50 per cent. of his cases, while Meyer, with 103 cases, found it in only 10 cases, less than 10 per cent. Alcohol in the parents, as well as tuberculosis, has been given as a predisposing cause to hysteria. The figures of Meyer and ours both show a small number of cases where either influence was present, probably not a greater percentage than is present in the population at large.

Mills includes under predisposing causes neglect of physical health, hardship, climate and depleted conditions of the blood, and Lloyd, acute diseases. While these undoubtedly lessen the physical, and so the mental health and vigor of the child, and so are factors in lessening resistance, it seems hardly necessary to assign them a more important place in the etiology of the disease, as Thiemich well shows when he remarks that most of this class of causes would act on all the children of a family, and yet it is rare to find more than one child in the family affected by hysteria.

Mills places among the predisposing causes improper education and this often plays a large part if we include under this term the lack of training in self-control that a large proportion of these children show. Parental example, of which he also speaks, seems to act rather directly as an exciting cause through suggestion, while Lloyd's inclusion among causes of severity and cruelty can be explained in most cases certainly as exciting causes through the emotional disturbances caused by them rather than as predisposing causes. Heubner, Meyer, Thiemich, Bruns, Mills, Lloyd and almost all other writers recognize the predominant role played among exciting causes by trauma, physical and psychical, as fear, anger, chagrin, grief, regret and especially fright. In fact, it may be that the emotional disturbance, the psychical shock of Binswanger, is the essential element in every case, and certainly is an important element in the cases after physical trauma. This is often shown very clearly by the disproportion between the physical effects locally of the trauma and the symptoms produced by it. These cases among children are especially unfortunate for the theory sometimes propounded which explains the hysterical symptoms following upon some trauma as being due to the effect of litigation upon the patient's mind, as almost none of the cases in children are the subject of suits, because the trauma is usually received from some carelessness of the child or others, or at home, in both cases preventing anyone from being made legally liable for damages, and even where there is litigation this is frequently unknown to the child. In our cases only once was there a law suit. In children, even more than in adults, both in the cases following trauma and in others we see the bad effect of parental sympathy and anxiety. Meyer instances this fact and it is particularly shown in some of Hecht's cases and in some of those reported here. Thiemich thinks this is particularly apt to be the case with late and only children.

Thiemich, Meyer and others call attention to the role of imitation, as after seeing convulsions, or polyuria and excessive thirst where a parent is suffering from diabetes. Onanism as a cause we have failed to find, and Meyer makes the statement that he has never noticed masturbation in hysterical children. Jolly thinks while it may be a cause it is rare. Henoch reports a case of hysterical paraplegia in a boy of seven which was thought to be due to this cause. This fact, that masturbation is so rarely a cause, certainly is against the views of Freud of the frequent relation of the sexual sphere to hysteria.

Very important in the diagnosis of hysteria in children, because of the frequent paucity of objective symptoms, is the effect of suggestive treatment, the sudden cures by this means being especially frequent in children. Important in the same way, too, is the variability of the symptoms, or their complete disappearance temporarily, as was the case in several of our cases. Often the diagnosis is impossible without some such fact to aid us, or else long observation of the case, and because of insufficient observation a few cases included in our table where the diagnosis was open to doubt have not been reported in this paper. This need for continued observation is especially necessary in children, because of the fact upon which Bruns in particular has placed much stress that the so-called stigmata are rare in these cases, and are usually seen only in the older children. On this account he has called hysteria in children mono-symptomatic, a term which is useful, but may lead to confusion if we do not bear in mind that what is meant in particular is the absence of disturbances of sensation in the skin and retina, and of the tender areas. Thiemich argues from this mono-symptomatic character of the diease in children that at the time the hysterical symptoms appear there is no deep alteration of the personality as a whole necessarily present, so the prognosis is relatively more favorable than in adults.

Thiemich quotes Moebius to the effect that we should consider all pathological alterations of the body functions as hysterical which are caused by ideas, and not only intellectual ideas, but also emotional states with excitement. From this conception he rules out as possible hysterical symptoms such things as atrophy of the optic nerve, choked disc, the reaction of degeneration, loss of tendon reflexes, hemianopsia, ankle clonus, Babinski's sign, and paralysis of ocular muscles. In the main this point of view is correct, in spite of the fact that in certain rare cases of hysteria some of these symptoms have been observed, and recognizing that others may be simulated by hysterical symptoms, as an eye muscle palsy by a hysterical spasm of an eye muscle.

The number of cures in these cases in children, as given by Bruns from his 144 cases, after rejecting 49 because they were only seen once, from the remaining 95 cases 85 were cured quickly, while 7 were long cases, but were finally cured, and three cases were improved only. Of these three uncured cases one was seven years old and the other two between twelve and fifteen years. Of Duvoisin's 24 cases all but two were cured quickly, but of these 22 children 14 had a recurrence of the hysterical symptoms later. Of Meyer's 103 cases 15 had recurrence, a much better proportion, and probably nearer the average figures. This number of cases showing a return of the trouble should make us somewhat reserved in giving a good prognosis in these cases, and should make us more careful to keep the children under treatment until the mental health is sufficiently established to lessen this danger.

Eshner, Hun, J. W. Putnam, Hecht and others in America have published typical cases of hysteria in children, the article by Hecht, which appeared during the preparation of this paper, being especially full and valuable in its discussion of the subject. Lloyd, writing in 1894 in Starr's text-book on the " Disease of Children," gives an excellent account of hysteria, but thinks tremor and some other symptoms more frequent in adults than in children, while our experience and the published cases show this to be fairly frequent in the young. He also lays little emphasis in his description upon the absence of the stigmata which is so common, a fact to which Bruns and Thiemich seem to have been the first to call attention. Mills, in Keating's " Cyclopædia of the Diseases of Children," in 1890, states that convulsions are rare before puberty. This seems hardly to be borne out by the facts, especially if we include the minor attacks in which a part of a typical convulsive seizure is seen, though severe hysterical convulsions are rare in this country in children, as is also the case in adults. Chorea, as a hysterical manifestation, Mills regards as rare, in which opinion we should concur. Most of the cases of hysterical chorea are doubtful, even in the epidemics of chorea in schools, though a few cases in which the cure is obtained in a few days by suggestion, such as the case reported by Stadelman, show that it occurs, Recurrences, sometimes regarded as a proof that a case is hysterical, are as likely to be seen in chorea as in hysteria. Paralysis, we have seen, can hardly be called rare before the age of thirteen, and hemianesthesia is seen not so much in the severer forms of the disease as in the older children. Like Mills, we have found sensory symptoms, especially hyperalgesia and pain, common. The occurrence of night terrors and somnambulism as hysterical symptoms seems somewhat questionable; certainly we have seen no instances of these troubles which seemed to us to require such an explanation. Both troubles are common in children, and of course may occur in children who are hysterical. The cases of which Mills speaks where there is elaborate fraud, where the wits are used perversely, as in ringing bells, rappings, destruction of furniture and such things may be hysterical, but they have not been seen at the Children's Hospital clinic. So also attacks of great mental excitement in children may be hysterical. The psychical forms of hysteria are somewhat rare in children, unless we include such minor phenomena as attacks of laughing and crying, which are frequent in the hysterical children, but not rare in other children also. Such attacks, when combined with twitching and trembling of the hands, or the more complicated movements known as clownism, which seem to occur independently, as well as taking the place of the passionate attitudes seen in the adult hysterical attacks, are more surely hysterical than when simple emotional disturbances alone are seen. Not infrequently the attacks of running after a slight unconscious attack, or such acts as climbing up the wall by furniture or pictures may belong in this class of phenomena, though one must not forget that they may be seen in other conditions, particularly in epileptic attacks.

In regard to treatment, all authors agree that as a rule in children the disease is more easily cured than in adults, but intractable cases are not rare such as Case 15 of this series. The plan of treatment must necessarily consider the factors in the etiology of each case, or perhaps more properly the factors which favor the further development of the disease. Here the most important thing is to remove such influences as far as possible, particularly such things as the undue solicitude and sympathy of parents or others in charge of the child. At times this is simple, as an explanation of the importance of this step may be all that is required. More often this is of no avail or makes things worse, from the fact that the unwise training of a child which has favored the development of the disease is due to defects of those in charge of it, so that the only method that is effectual is to withdraw the child from its surroundings, either temporarily or permanently. This in itself may be made a form of psychical treatment and can be made to act as a powerful suggestion of cure by rousing the desire of the child to return to its home. This is naturally an element in the isolation treatment which is advised so frequently at the present time in the treatment of hysterical and other psychical cases. Suggestion in another form of the unimportance of symptoms is the essential of one of the methods of treatment so strongly advocated by Bruns, as he calls it, the method of purposeful neglect. The details of this method are capable of great variation to suit the circumstances of each case, and may vary from simple encouragement with disregard of complaints carried out at home, to complete isolation, with no visits, no messages from home, and no companionship of other children or patients in the hospital.

Bruns' second method which in his hands has been used with great success, as well as by many others, is what he calls the method of surprise. The object of this is to show the child that a thing it has been unable to do before can be done by it, and in this way to remove the loss of voluntary control. For certain symptoms this method is of great value, as for the removal of the various forms of paralysis, while for others, as the convulsive attacks, it seems of little use. The treatment may be used in a great variety of ways. Bruns sometimes uses simply a stern command, or again may suspend a patient with astasia and suddenly let it drop upon the feet, then, as it stands for a moment in surprise, gives the command to walk, perhaps given in the form of saying that as the child now sees that it can stand, it can also walk. The sudden restoration of the voice, or of the movement of a paralyzed limb after a single painful application of electricity belongs to this method of treatment, which is capable of a large amount of variation to meet different conditions. Here again the method is one of a single powerful suggestion. The objection has been made that this method simply removes a single hysterical symptom, and does not cure, and in a certain sense this objection is a valid one. However one should remember that this in itself is one of the most powerful suggestions of cure that can be given a patient, and where the psychical dissociation is not profound, as is probably the case with most of the children with hysteria, it may be practically a cure in itself. Jolly advises its use only to remove a single troublesome symptom, and while if this symptom is the only one present of the disease we may call this a cure, it certainly should be followed up by such change in the surroundings and training of the child as seem to be required to confirm its mental health and remove factors which predispose to a new outbreak of the trouble. Others object that the method is brutal and may result in a fright to the child which may do much harm. This objection is a very valid one, and the manner of carrying out this treatment should be carefully considered in each case with this possibility held firmly in mind. The method of reëducation as used for adults seems more suitable for the cure of the paralyses of various forms in the case of very excitable children than this method of surprise, and is open to fewer objections. On the whole, however, this reëducation is more difficult of application to children than to adults, though this naturally is subject to great variation.

To these methods the physiological ones of electricity, hydrotherapy and other methods of this sort may be added, and in the application of these forms of treatment the suggestion cannot be neglected, whether they act only through suggestion or not. In certain rare cases the application of plaster of Paris bandages or even operation as for obstinate contractures may be required, though we have usually found that these methods failed where others had already failed, or were of only temporary benefit. General tonic treatment in debilitated children and favorable hygienic surroundings are of great importance, and while often but little can be done to change them, the mental habits of the child and its training are perhaps of more importance than all other things together. Thus, a wise physician, by timely advice in regard to the management of children and the training of them in self-control, may do more to save the development of hysteria than he or anyone else knows. Hypnotism we have used in certain obstinate cases and usually to remove some troublesome symptom, and even then with somewhat poor success, perhaps due to unfavorable conditions. The method is certainly dangerous, and especially so in children, as Binswanger says, when he warns against the danger in children of bringing about autohypnotism, or an automatic confusional state. Freud's so-called cathartic method from our experience is of very little use in hysteria in children, certainly much less applicable than in cases in adults.

With the use of all methods there is a residue of cases in which we remain unsuccessful, sometimes for one reason and sometimes for another, but certainly, with proper coöperation on the part of parents, or control of the surroundings, cure in children is much more often obtained than is the case with adults. In other cases the cure may be only temporary, and the patient relapse later, especially if the surroundings are unfavorable and remain so, in which case we are apt to see develop the severe chronic forms in adult life, though the greater number of these cases in my experience begin soon after puberty, rather than before.

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